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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,238	04/04/2001	Billy R. Carpenter	TA-00480	2500

7590

10/01/2003

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EXAMINER

KNOLL, CLIFFORD H

ART UNIT

PAPER NUMBER

2189

DATE MAILED: 10/01/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,238

Applicant(s)

CARPENTER, BILLY R.

Examiner

Clifford H Knoll

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-16 rejected under 35 U.S.C. 102(b) as being anticipated by Wiener (US 5524679).

Regarding claim 1, Wiener discloses a wiring network having a composite fabrication assembly comprising a plurality of conductive conduits placed between layers of the assembly each having opposite ends (e.g., col.5, lines 31-34), first and second gateways (col.8, lines 10-13), and a controller for selecting a conduit and for selecting and directing the transmittable information over the selected conduits (e.g., col.8, lines 29-40).

Regarding claim 2, Wiener also discloses multiple component specific conduits between the gateways and specific component (e.g., col.8, lines 29-40).

Regarding claim 3, Wiener also discloses comprising electrical wires (e.g., col.8, lines 20-21).

Regarding claim 4, Wiener also discloses comprising optical wires (e.g., col.8, lines 15-16).

Regarding claim 5, Wiener also discloses each gateway as a bus (e.g., col.8, lines 39-44).

Regarding claim 6, Wiener also discloses wherein each gateway is placed between layers of the assembly, further including a terminal for connecting a component to the gateway externally of the layers (e.g., col.8, lines 29-40).

Regarding claim 7, Wiener also discloses a programmable server (e.g., col.8, lines 29-33).

Regarding claim 8, Wiener further discloses gateways associated with each externally connected component and the server is adapted for selecting any of a plurality of conduits for transmitting information (e.g., col.8, lines 15-19).

Regarding claim 9, Wiener still further discloses a predetermined hierarchy (e.g., col.8, lines 52-55).

Regarding claim 13, Wiener also discloses a vehicle having a central control center and a plurality of components located remotely from the central control center and controlled from the central control center (col.8, lines 52-54).

Regarding claim 15, Wiener discloses a plurality of conductive conduits placed between layers of the assembly each having opposite ends (e.g., col.5, lines 31-34), first and second gateways (col.8, lines 10-13), and a controller for selecting a conduit and for selecting and directing the transmittable information over the selected conduits (e.g., col.8, lines 29-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-12, 14, 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Wiener in view of Huang (US 2002/0078138).

Wiener teaches the use of the wiring network in the transmission of data in highly parallel systems and local area network interconnects for application in aircraft (e.g., col.3, lines 27-34, col.1, lines 15-31, Abstract). Wiener does not expressly mention the particular limitations of the instant claims in the practice of the disclosed invention. However, Huang discloses these limitations:

Regarding claim 9, Huang discloses selecting the conduit on the basis of predetermined hierarchy (e.g., paragraph [0012]).

Regarding claim 10, Huang also discloses selecting the conduit of least resistance (e.g., paragraph [0044]).

Regarding claim 11, Huang also discloses selecting the shortest conduit (e.g., paragraph [0044]).

Regarding claim 12, Huang discloses a conduit selector on each gateway (e.g., paragraph [0044]).

Regarding claims 14 and 16, Huang discloses a cockpit with the controller located in the cockpit and the remote component located outside the cockpit (e.g., paragraph [0003]).

It would be obvious to combine Huang with Wiener because Wiener clearly teaches the use of her invention for parallel high-speed systems in general, and in

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aircraft in particular, such as the system of Huang. Therefore it would be obvious to one of ordinary skill in the art to combine Huang with Wiener at the time the invention was made.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kircher (US 4537469) discloses a different embodiment of forming optical transmission conduits in composite material. Overall the area of parallel bus interconnects is well established as for example Huang, cited above. In addition, Greenfield (US 6618777) discloses a means of selecting among conduits for communication, as do Doerenberg (US 6467003), Paulsen (US 5530813) and Morrison (US 5809220).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.



MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
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chk